NCERT SOLUTIONS CLASS-8 MATHS
CHAPTER-4 EXERCISE-4.2

Question 1: Construct the geometry of the following quadrilaterals by the given data.

i) Quadrilateral of the word called GIFT

GI= 4 cm

IF= 3 cm

TG= 2.5 cm

GF= 4.5 cm

IT= 4 cm

ii) Quadrilateral BOLD

OL =7.5 cm

BL=6 cm

BD=6cm

LD =5 cm

OD=10 cm

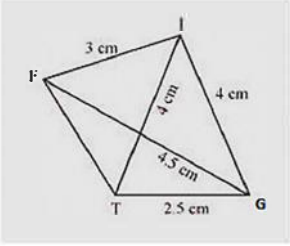
iii) Rhombus MEND

MN=5.6 cm

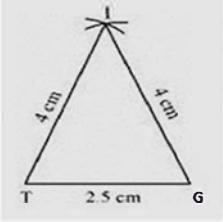
DE=6.5 cm

Answer:

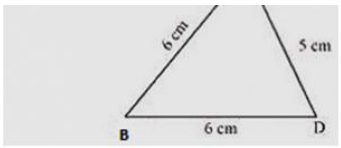
The rough text of the quadrilateral can be drawn here:



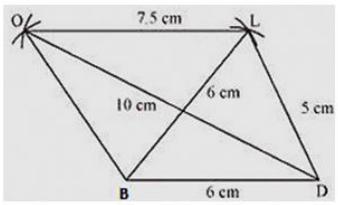
ΔGIT can be constructed by following measurements



2) Vertex F is 4.5 cm away from vertex L and 5 cm away from vertex I. Therefore, while taking L and I as centres, draw arcs of 4.5 cm radius and 3 cm radius respectively, which will be intersecting each other at point F.

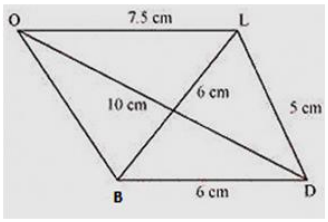


3) Join F to T and F to I.

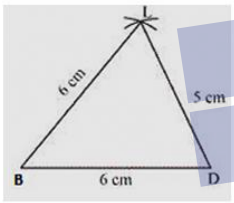


BEAT is the required to form the quadrilateral.

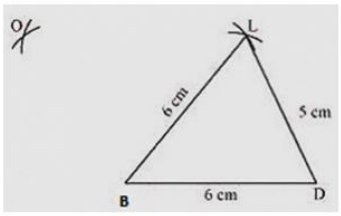
ii) A rough sketch of this the diagram quadrilateral can be as follows.



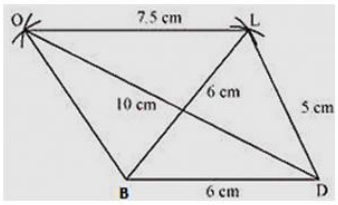
1) ΔGDLcan be constructed by following measurements of the quadrilateral



2) Vertex O is 10 cm to the vertex D and 7.5 Cm from vertex L. Therefore, while taking D and L as centres, draw arcs of 10 cm radius and 7.5 cm radius respectively. These will intersect each other at point O.



3) Join O to L and B.



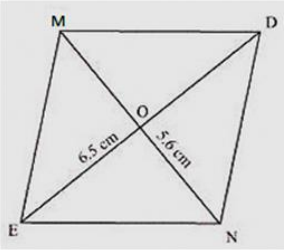
4) BOLD is the required quadrilateral.

iii) We know that the diagonals of a rhombus always bisect each other at 90°.Let us assume that these are intersecting each other at a point O in this rhombus

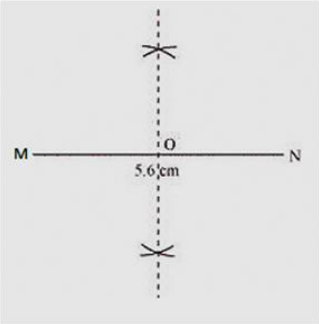
intersecting each other at a point O in this rhombus.

Hence EO=OD=3.25

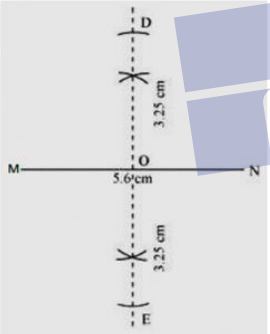
A rough sketch of the rhombus can be drawn as follows:



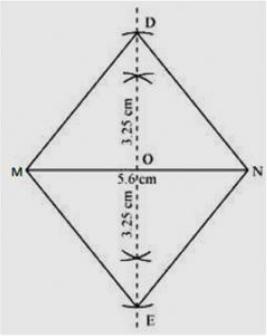
1) Draw a line segment MN of 5.6 cm and also draw its perpendicular bisector. Let it intersect the line segment MN at point O.



2) Taking O as centre, draw arcs of 3.25 cm radius to intersect the perpendicular.



3) Join points D and E to the points B and N.



MEND is the required quadrilateral.